ONDREJICKA, M.; KADLEC, O.; MIKO, M.; VAJCIK, J.; SIELIK, J.; Technicka spolupraca: JASLOVSKA, D.; PANTLOVA, J.

Electrolyte disorders in renal hypertension. Bratisl. lek. listy 45 no.9:521-530 15 N \*65.

1. Laboratorium pre vyskum pohybu vody a elektrolytov v organizme Lekarske fakulty Univerzity Komenskeho v Bratislave (veduci prof. MUDr. M. Ondrejicka) a I. interna klinika Lekarske fakulty Univerzity Komenskeho v Bratislave (veduci prof. MUDr. M. Ondrejicka).

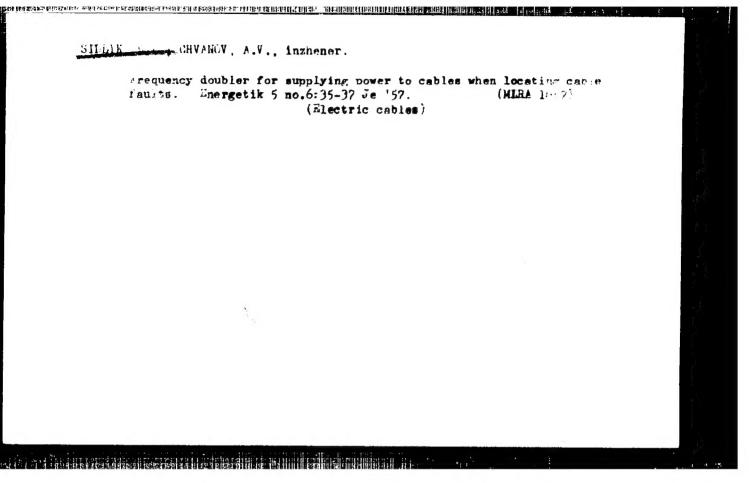
POPKOV, V.I., doktor tekhnicheskikh nauk; SIDLIK, L.Z., inzhener.

Invention of split wire conductors. Elektrichestvo no.8:67-69 Ag '53.

(MLRA 6:8)

1. Energeticheskiy institut imeni Krzhizhanovskogo Akademii nauk SSSR. (Electric cables)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001550420017-6"



大学。1. 对某种的转换编数的语数的性别处理的对称是是到新和自己的对外。

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SOY/112-59-5-8849

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 61 (USSR)

AUTHOR: Belen'kiy, L. S., Korobkova, V. P., and Sidlik, L. Z.

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TITLE: Determining the Maximum No-Load Current of Transformers and the Charging Current of 110- and 35-kv Lines Cut by Type RLN Disconnects

PERIODICAL: Naladochnyye i eksperim. raboty ORGRES, Nr 15, 1958, pp 156-163

ABSTRACT: To determine the possibility of adopting the substation schemes without circuit-breakers on the high-voltage side, ORGRES jointly with large power systems (Lenenergo, Mosenergo, and others) staged tests intended to determine maximum currents and thereby maximum power of transformers and also maximum length of a transmission line that could be reliably cut off at no-load by a type RLN disconnecting switch. In addition to visual observations, a cinema filming was made which permitted determining the duration of arcing; to determine accurately the moment of arc extinction in relation to the angle of the disconnecting blades, both the current being interrupted and the blade

Card 1/2

SOV/112-59-5-8849

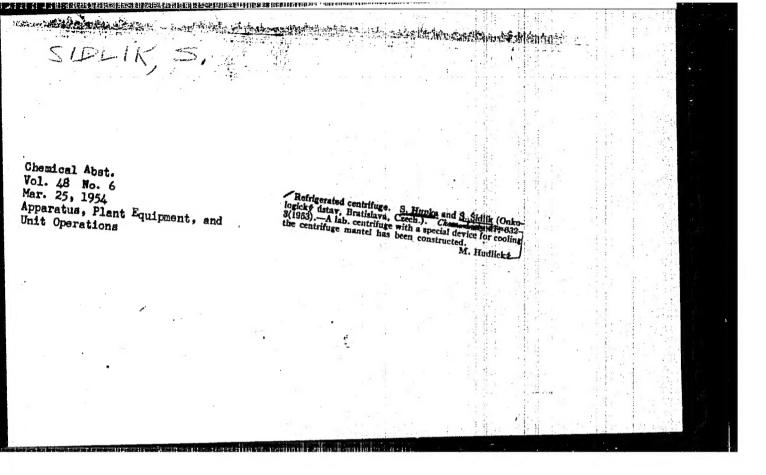
Determining the Maximum No-Load Current of Transformers and the Charging . . .

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movement were recorded by an oscillograph. Overvoltages set up by cutting off no-load lines were not measured. The tests enable one to draw the following conclusions: The voltage, maximum transformer capacity, and transmission-line length which could be cut off at no-load can be considerably increased over those specified by the PTE MES standards. No-load currents as high as 7 amp for 20-Mva, 38-kv transformers and 10 amp for 31.5-Mva, 110-kv transformers can be cut off by a RLN disconnect. It is recommended that the disconnects be operated on or off quickly. Pole separation of the disconnect should not be less than 2,500 mm for 110 kv and 1,200 mm for 35 kv. To determine the maximum no-load length of 35- and 110-kv lines that could be cut off by the disconnect, overvoltages accompanying the line interruption need to be studied.

I.S.Sh.

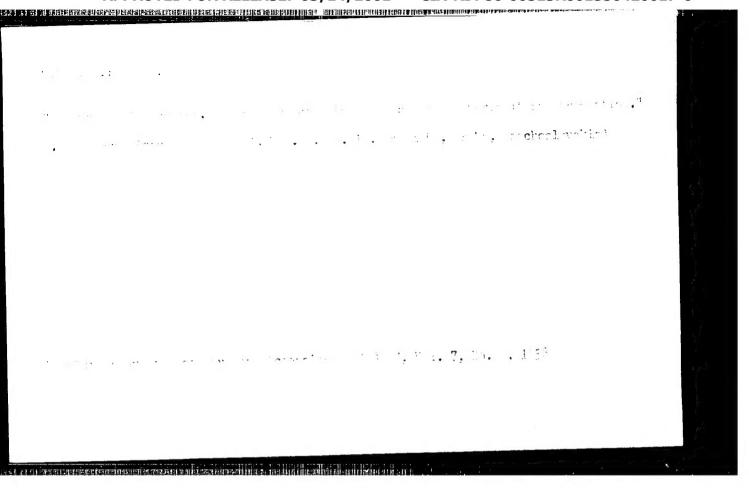
Card 2/2

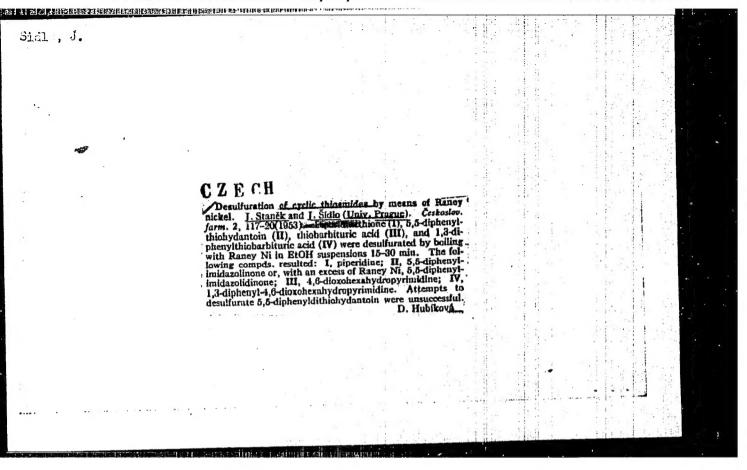


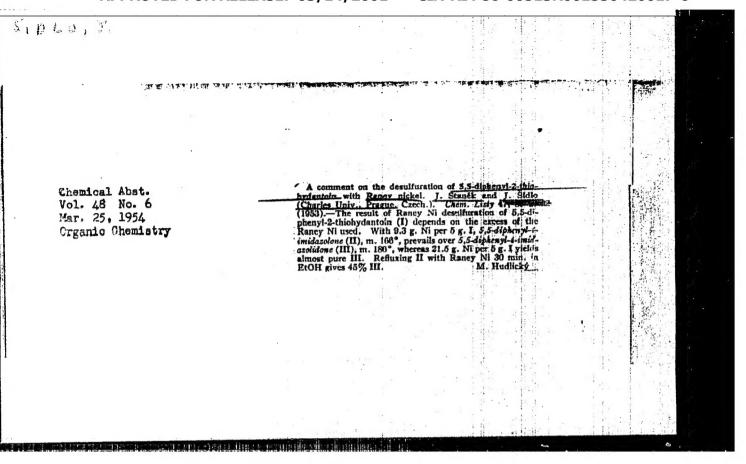
SIDLIK, Z. L.

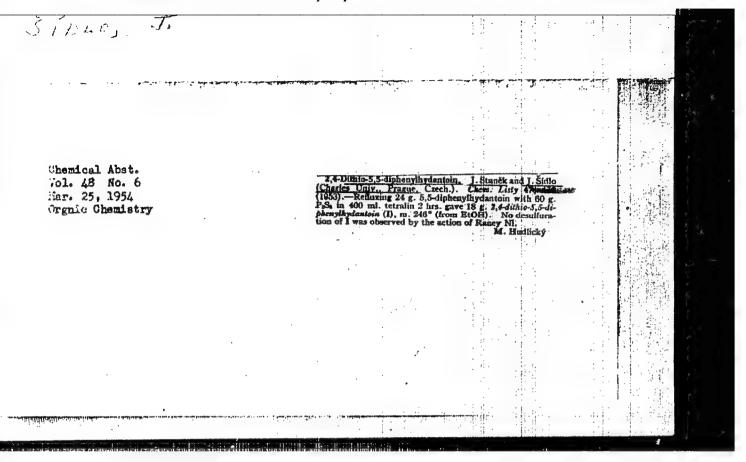
Sbornik zadach po promyshlennoi statistike  $\mathcal{L}$ roblems in Industrial statistic  $\mathcal{J}$ . Gosstatizdat, 1952. 212 p.

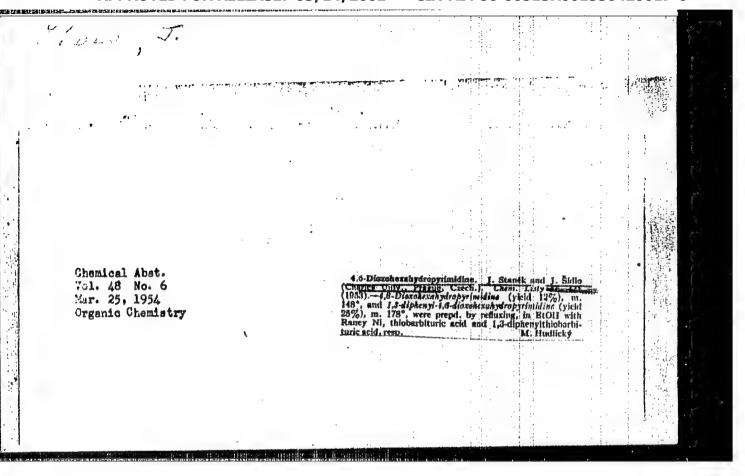
50: Monthly List of Russian Accessions. Vol. 6 no. 7 October 1953











SIDLO, Richard

Frantisek Skoda, M.D. Plzen. lek. sborn. 24:163-176 164

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l. Katedra zdravotnictvi lekarske fakulty University Karlovy
v Plzni (vedouci: prof. dr. R. Bures).

SAMAN, K.; CZRHOVA, M.; SIDLOVA, A.

Serotonin in patients with glaucoma. Cesk. ofth. 16 no.3/4:181-187 My '60

l. Ocni klinika lekarske fakulty KU pobocka v Plzni, prednosta prof. dr. R. Knobloch Interni klinika lekarske fakulty KU pobocka v Plani, prednosta prof. dr. K. Bobek.

(GLAUCOMA blood)

(SEROTONIN blood)

SAMAN, K.: CLRHOVA, M.; SIDLOVA, A.

Biological and chromatographic determination of the "tonizing" substance in the aqueous humor of the rabbit in trigeminal irritation and section. Cesk.ofth.16 no.7:447-453 N'60.

1. Ocni klinika lekarske fakulty KU, pobocka v Plani, prednosta prof.dr. R.Knobloch. Interni klinika lekarske fakulty KU, pobocka v Plzni, prednosta prof.dr. K. Bobek.

(TRIGEMINAL NERVE physiol)

(AQUEOUS HUMOR chemistry)

VANICEK, F.; SIDLOVA, A.; KNEIFL, J.

Experiments with the preparation and conservation of biological supplement to deficient diets. Acta univ. carol. [Med] Suppl. 15:243-253 '61.

BAUDIS, P.; VANA, J.; CERHOVA, M.; SIDLOVA, A.

A study of the serotonin blood level in the course of schizophrenia. Cesk. psychiat. 57 no.3:164-169 '61.

1. Psychiatricka a interni klinika KU v Pizni.
(SEROTONIN blood) (SCHIZOPHRENIA blood)

CERHOVA, M.; SIDLOVA, A.; ZELENY, A.

The effect of skin inflammation on blood content of serotonin and h histamine. Physiol. Bohemoslov. 11 no.2:136-141 '62.

1. Institute of Physiology, Medical Faculty of Charles University, Plzen.

(ULTRAVIOLET RAYS) (DERMATITIS experimental)
(SEROTONIN blood) HISTAMINE blood)

SIDLOVA, Alena

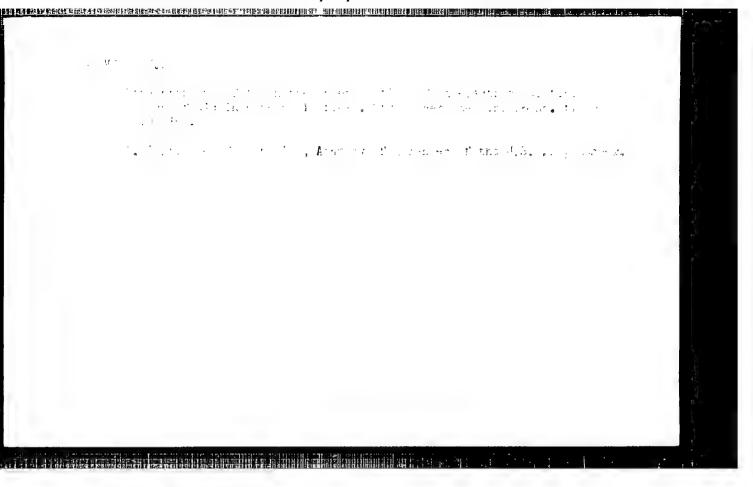
Changes in the body of mountaineers during a 1-week sojourn in the High Tatra Mountains. Plzen. lek. sbcrn. 23:31-40 164

l. Hygienicky ustav lekarske fakulty University Karlovy se sidlem v Plzni (prednosta: doc. MUDr. F. Vanicek).

SIDLOVSKI, V.P. [Shidlovsky, V.P.]

Problem of a viscous, electrically conducting gas in the vicinity of a porcus infinite plate. Studii cerc mec apl 13 no.3:701-706 '62.

1. Institut mekhaniki Akad. Nauk SSSR.



#### "APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001550420017-6

L 54054-65

EWT(1)/EPF(n)-2/EWG(v)/EPRF Pe-5/Ps-4/Pu-4

WW/GG

ACCESSION NR: AP4049531

R/0008/64/016/004/1009/1019

40 A

AUTHOR: Sidlovski, V. P.

TITLE: Some problems concerning the discontinuous movement of an electrically conducting viscous fluid in a magnetic field

SOURCE: Studii si cercetari de mecanica aplicata, v. 16, no. 5, 1964, 1009-1019

TOPIC TAGS: hydromechanics, viscous fluid, electrically conducting fluid, magnetic field, discontinuous flow, rotating cylinder, Bessel function, concentric cylinder

ABSTRACT: The author presents two cases of discontinuous movement of an incompressible, electroconductive, viscous fluid in a magnetic field. The first case concerns the flow of an unlimited volume of fluid around an infinite cylinder of radius a, which begins to rotate abruptly at an instant t=0, with a constant angular velocity ( $\psi$ ). The magnetic field is permanent, having the components  $H_{r}$  and  $H_{z}$ . The intensity vector of the magnetic field applied at any point in the interior of the fluid may have an arbitrary direction, the only condition being that of conserving the symmetry with respect to the axis of the cylinder. An electrical field is supposedly absent, so that the magnetic field is station—

Card 1/5

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ary. The equations of the problem are set-up starting from Lorenz's force equation. Supposing that Hz=constant=H1, the equations of the movement of the liquid may be written as:

where :y = coefficient of kinematic viscosity; p = pressure; p= density; v = tangential component of flow velocity; r = radial coordinate; k is the parameter

$$k = \mu_{\bullet} H_{1} \sqrt{\frac{\sigma}{\rho^{\vee}}}$$

and d is the parameter.

$$\alpha = \sqrt{1 + \frac{\mu_t^2 \sigma H_0^2 \sigma^2}{\rho \nu}}.$$

Card 2/5

L 54054-65

ACCESSION NR: AP4049531

The equation is solved for the following initial and limiting conditions; for t = 0, r > a and for  $r \longrightarrow \infty$ , v = 0; for t > 0, r = a,  $v = \omega a$ . In the final solution, the velocity v is defined as:

$$(v)_{k=0} = \frac{\omega a^{\alpha+1}}{r^{\alpha}} + \frac{2\omega a}{\pi} \int_{0}^{\infty} e^{-\lambda^{2}vt} \cdot \frac{J_{\alpha}(\lambda r) Y_{\alpha}(\lambda a) - Y_{\alpha}(\lambda r) J_{\alpha}(\lambda a)}{J_{\alpha}^{2}(\lambda a) + Y_{\alpha}^{2}(\lambda a)} \cdot \frac{d\lambda}{\lambda}.$$

where J $\not$  and Y $\not$  are Bessel functions of the first and second kind, and of  $\not$  order. The variation of the frictional moment as a function of time, and for different intensities of the magnetic field, is shown in a diagram. The second case concerns the axial flow of fluid between two concentric cylinders of infinite length, in the presence of a permanent, axiosymmetrical and stationary magnetic field, and under the influence of a pressure gradient. The case is studied according to the hypothesis that the constant pressure gradient (dp/dz) is applied abruptly at an instant t=0. The equations of the permanent motion of the fluid are set up taking into consideration the presence of the Lorenz force:

$$\frac{1}{r} \frac{\mathrm{d}}{\mathrm{d}r} \left( r \frac{\mathrm{d}u}{\mathrm{d}r} \right) - n^2 u - \beta^2 \frac{u}{r^2} = \frac{1}{\mu} \frac{\mathrm{d}p}{\mathrm{d}z} \equiv -4\sigma,$$

$$n = \mu_c H_1 \sqrt{\sigma/\mu}, \qquad \beta = \mu_c H_0 b \sqrt{\sigma/\mu}.$$

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ACCESSION NR: AP4049531

and must meet the following limiting conditions: u=0 for r=0 and for r=b. Under the same axial-pressure gradient (dp/dz), the discontinuous flow which appears in a stationary fluid in the interior of a concentric tube at an instant t=0 begins with a constant velocity in a section U; the equation of the motion becomes

$$\frac{1}{r}\frac{\partial}{\partial r}\left(r\frac{\partial u}{\partial r}\right) - n^2u - \beta^2\frac{u}{r^2} = -4c + \frac{1}{v}\frac{\mathrm{d}u}{\mathrm{d}t}$$

with the initial condition u=U for t=0, and the limiting conditions the same as for continuous motion. Moreover, the asymptotic condition u—>uc for t—— must also be met. In the final solution, the non-dimensional friction-resistance in coefficient ( $C_T$ ) in the concentric tube of length L, for a fluid with viscosity  $\mu$  and a total force of friction  $F_T$ , is given by the expression:

$$C_T = \frac{F_T}{2\pi\mu LU} = \frac{f_s + f^*}{U}.$$

The variations of the friction coefficient as a function of time, in the absence

Card 4/5

L 54854-65
ACCESSION NR: AP4049531

of the magnetic field (\$\beta=0\$) or for \$\beta=2\$, are shown in a diagram. Orig. art. has:
4 figures and 46 formulas.

ASSOCIATION: Institutul de mecanica al Academiei de stiinte a U.R.S.S., Moscow (Institute of Mechanics, Academy of Sciences SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: ME, MA

NO REF SOV: 003 OTHER: 004

(MIRA 9:10)

# Concentration of dynamic stresses at the centeur of a circular aperture in a plate with longitudinal forces applied to its edges.

इन्द्रद्रन्यारक्षका द्रावास्त्रका द्रावास अवस्था विकास सामाना । अस्यानास सामानास सामानास सामानास सामानास सामान इन्द्रद्रन्याक समानास सामानास सामानास

Part 1, Nauk.zap.Kiev.um. 9 ne.9:83-110 '50. (Blastic plates and shells) (Strains and stresses)

Concentration of dynamic stresses at the centeur of a circular aperture in a plate with longitudinal forces applied to its edges.

Part 2. Nauk.zap.Kiev.un. 9 no.9:111-128 \*50. (MIRA 9:10)
(Elastic plates and shells) (Strains and stresses)

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124-11-13097

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p. 117 (USSR)

AUTHOR: Sidlyar, M. M.

TITLE: Dynamic Elastic Displacements in a Circular Ring. (Dinamicheskiye

uprugiye smeshcheniya v krugovom kol'tse.)

PERIODICAL: Nauk. zap.Kiyvstk. un - t, 1954, Vol. 2018 Nr. 8, pp. 133-147

ABSTRACT: Investigation of the plane dynamic problem of a circular ring subjected to radial forces, uniformly distributed along the inner and

outer contour of the ring and varying with time. The forces are applied suddenly. At the starting time the ring is in a state of quiet.

The desired displacements u appear as functions of the radius

r and time t and must satisfy the equation

$$\frac{\partial^2 u}{\partial r^2} + \frac{1}{r} \frac{\partial u}{\partial r} - \frac{u}{r^2} = \frac{1}{c^2} \frac{\partial^2 u}{\partial t^2}$$

Card 1/3

124-11-13097

Dynamic Elastic Displacements in a Circular Ring. (Continued)

the initial condition

$$\begin{bmatrix} u \\ t=0 \end{bmatrix} = \begin{bmatrix} \frac{\partial u}{\partial t} \\ t=0 \end{bmatrix} = 0$$

and the contour conditions

Through the application of a one-sided Laplace transformation the where equation and the contour conditions are transferred into the sphere of representation. A Bessel equation is obtained, the general integral of which is written in terms of two cylindrical functions of the imaginary argument. This solution satisfies the transformed contour conditions. With the aid of a conversion formula the transfer into the original sphere is then accomplished. The desired displacements for the general case are represented in the form of a Riemann-Mellin integral.

Card 2/3

124-11-13097

Dynamic Elastic Displacements in a Circular Ring. (Continued)

An investigation of the roots of the denominator of the integrand function is performed in the complex sphere. It is demonstrated that the denominator has only purely imaginary roots. By means of a change to an asymptotic expansion of Bessel functions a simple approximated formula is obtained for large modulus values of the roots.

A table of the first 10 roots of the denominator is set up for the plane deformed and plane stressed state for various values of the ratio  $r_2/r_1$ .

In greater detail an investigation is made for the case in which the external and internal pressures, applied suddenly, remain from then on constant. In that case the Riemann-Mellin integral is evaluated with the aid of computational theory, and the displacements are represented in the form of an infinite series. The uniform convergence of the series thus obtained is demonstrated.

(L. M. Kurshin)

Card 3/3

SOV/124-58-10-11457

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 108 (USSR)

AUTHOR: Sidlyar [Sidlyar, M.M.]

TITLE: On a Dynamic Problem of the Distribution of Stresses Around a Hole

(Ob odnoy dinamicheskoy zadache raspredeleniya napryazheniy okolo

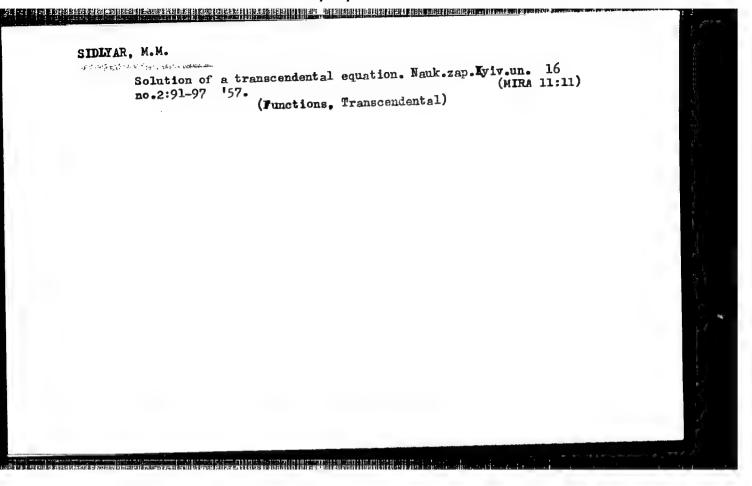
otverstiya) in Ukrainian

PERIODICAL: Nauk. shchorichnyk. Mekhan.-matem. fak. Kyyivs'k. un-tu, 1956.

Kyyiv, 1957, p 545

ABSTRACT: Bibliographic entry

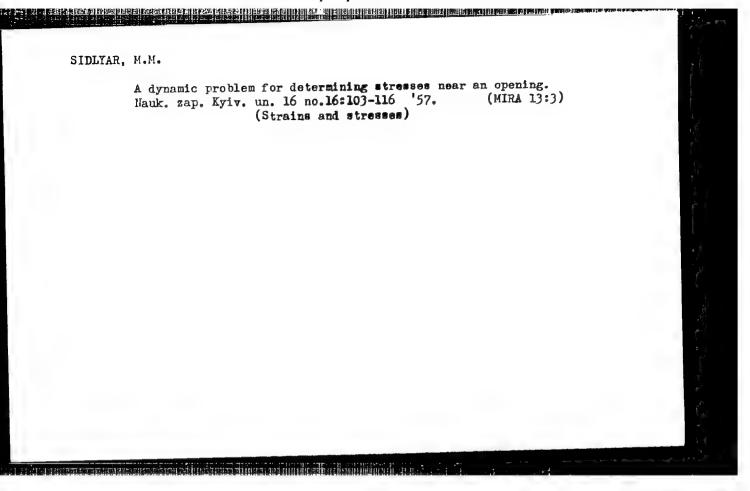
Card 1/1



KILICHEVSKIY, M.O.; KOVALELKO, A.D.; SIDLYAR, M.M.

Research in the Department of Mechanics, the Department of the Theory of Elasticity, and the Department of Aerohydromechanics and Heat Exchange. Nauk. zap. Kyiv. um. 16 no.16:29-41 '57.

(Kiev--Mechanics--Study and teaching)



24.4200

35850 \$/044/62/000/002/049/092 C111/C444

AUTHOR:

Sidlyar, M. M.

TITLE:

The determination of tensions in closed form in dynamic

problems of the theory of elasticity

PERIODICAL:

Referativny; zhurnal, Matematika, no. 2, 1962, 78, abstract 28350. ("Visnyk Kyivs'k. un-tu," 1958, no. 1,

ser. estron. matem. ta mekhan., vyp. 2, 41-48)

TEXT: For the Lamé equations with vanishing initial conditions and inhomogeneous boundary conditions one solves the vectorial instationary boundary value problem. The author uses the Laplace transformation and gains the solution in quadratures. As an example one considers longitudinal oscillations of a bar for variable charge at its ends.

Abstracter's note: Complete translation.

Card 1/1

32562

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S/198/61/007/006/005/008 D299/D301

76.2111

AUTHORS:

Antonov, A, M. and Sidlyar, M. M. (Kyyiv)

TITLE:

Approximate solutions to the problem of hypersonic

flow past slender bodies

PERIODICAL: Prykladna mekhanika, v. 7, no. 6, 1961, 649-655

TEXT: Hypersonic flow at Mach numbers M = 16-20 is considered. The problem is solved in the second approximation which permits a more exact description of the body surface and of the pressure distribution. The solution is expressed in series in the small parameter, related to the relative thickness of the body. A numerical example of flow past a wedge is considered. After computations, formulas are obtained for the conservation laws, the continuity equation and the second law of thermodynamics. The dimensionless coordinates

 $x = \bar{x}; \quad y = T\bar{y}; \quad z = \bar{z}$ 

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Card 1/5

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Approximate solutions to ...

are introduced and the first-approximation equations obtained. In the second approximation, a system of 5 equations is derived, the first of which is

$$\underbrace{u_0 \frac{\partial u_0}{\partial \overline{x}} + \frac{\partial u_1}{\partial \overline{x}} + v_0 \frac{\partial u_1}{\partial \overline{y}} + v_1 \frac{\partial u_0}{\partial \overline{y}} + v_0 \frac{\partial u_1}{\partial \overline{z}} + u_1 \frac{\partial u_0}{\partial \overline{z}} + u_1 \frac{\partial w_0}{\partial \overline{z}} - \frac{\varrho_1}{\varrho_0^2} \frac{\partial P_0}{\partial x} + \frac{1}{\varrho_0} \frac{\partial P_1}{\partial x} = 0,}_{(3.1)}$$

where p is the density, P - the pressure. For the plane problem, the obtained equations are simplified, whereby the stream function in the second approximation is given by the expression

$$\omega' = \gamma_0' + z \gamma_1'$$
 (4.8)

As a numerical example, hypersonic flow past a wedge is considered.

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Approximate solutions to ...

The first-approximation equations are solved by D. Van Dyke's method. In the second approximation, one obtains for plane flow:

$$v_{1} = -\frac{2}{\varkappa + 1} (\overline{\Phi}_{x}^{*})^{3}; P_{1} = -\frac{2}{\varkappa + 1} (\overline{\Phi}_{x}^{*})^{4}; \rho_{1} = -\frac{(\varkappa + 1)k^{2}}{[2 + (\varkappa - 1)k^{2}]^{2}}$$
 (5.6)

The expression for the pressure coefficient is

$$\frac{c_{p}}{\tau^{2}} = 2 \left( \frac{2}{\partial t + 1} \frac{k^{2} - 1}{k^{2}} - \frac{2}{\varkappa + 1} \tau^{2} \right)$$
 (5.12)

The magnitude of the angle  $\theta_1$ , related to the thickness of the edge in the first approximation, is determined by the condition that the stream function  $\Upsilon$  is the equation of the wedge surface, i.e.

Card 3/5

32562 \$/198/61/007/006/005/008 D299/D301

Approximate solutions to ...

$$\psi(0) = 0 \text{ for } 0 = 0_0 + \tau^2 0_1$$
 (5.13)

Expanding (5.13) in series in Tand retaining terms in  $\mathcal{T}^2$  only, one finally obtains for the thickness 0 the expression

$$0 = \frac{2(k^2 - 1)}{(2k + 1)k^2} - \frac{27^2}{2k + 1} \left[ 1 + \frac{(2k + 1)(k^2 - 1)}{2 + (2k - 1)k^2} \right]$$
 (5. 6)

Formulas (5.12) and (5.16) are the solutions to the problem in the second approximation. There are 2 figures, 1 table and 4 references: 2 Soviet-bloc and 2 non-Soviet-blot. The references to the ces: 2 Soviet-bloc and 2 non-Soviet-blot. The references to the English-language publications read as follows: D. Hays. F. Proceeding. Hypersonic flow theory. Academic Press, 1050; D. Van Dyke stein, Hypersonic small disturbance theory. NACA, Rep. Mc. 1194, 1954.

Card 4/5

32562

S/198/61/007/006/005/008 D299/D301

Approximate solutions to ...

Kyyivs'kyy derzhavnyy universytet (Kyyiv State Uni. ASSOCIATION:

versity)

SUBMITTED: January 24, 1961

Card 5/5

10 1410 1327 2807 2607

21365 S/021/61/000/012/002/011 D251/D305

262114 AUTHORS:

Antonov, A. M., and Sidlyar, M. M.

TITLE:

On determining the form of a shock-wave in the case of

streamlining of thin bodies by a stream of gas

PERIODICAL:

Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 12,

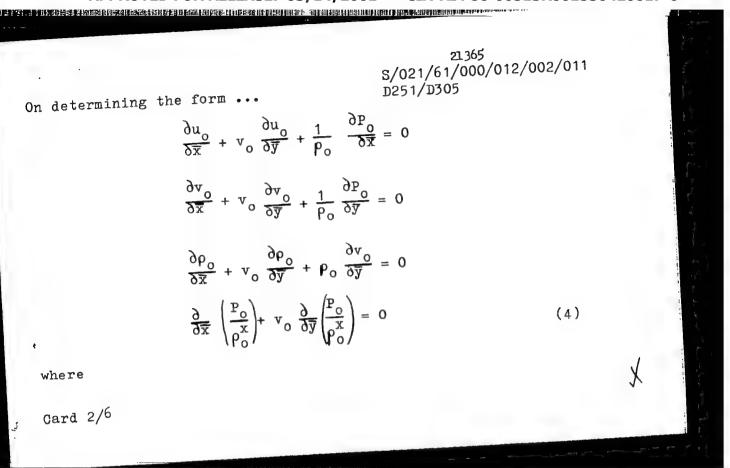
1961, 1556-1559

TEXT: The problem of the form of a shock-wave in the case of a body streamlined by a gas stream is investigated for high velocities of the gas (16 \( M \le 18 \)). The solution is constructed by the method of successive approximations, the relative thickness of the body being taken as the small parameter. It is assumed that the boundary conditions may be transferred from a shock wave of a higher approximation to the one determined by the previous approximation. The plane case is considered and the equations of the first and second approximations are found to be

Card 1/6

## "APPROVED FOR RELEASE: 03/14/2001 (

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21365 S/021/61/000/012/002/011 D251/D305

On determining the form ...

 $\bar{B}_{o\bar{x}} = \frac{d\bar{B}_{o}}{dx} \tag{7}$ 

and

$$\begin{aligned} v_{1}|_{\bar{y}=\bar{B}_{0}} &= \left\{ \frac{2}{\varkappa+1} \left( \overline{B}_{1\bar{x}} - \overline{B}_{0\bar{x}}^{3} + \frac{\overline{B}_{1\bar{x}}}{\overline{B}_{0\bar{x}}^{2}} \right) - \frac{\partial v_{0}}{\partial \bar{y}} \overline{B}_{1} \right\}_{\bar{y}=\bar{B}_{0}}, \\ u_{1}|_{\bar{y}=\bar{B}_{0}} &= \left( \frac{2}{\varkappa+1} \overline{B}_{0\bar{x}}^{4} - \frac{\partial u_{0}}{\partial \bar{y}} \overline{B}_{1\bar{x}} \right)_{\bar{y}=\bar{B}_{0}} - \frac{4}{\varkappa+1} \left( \overline{B}_{0\bar{x}} \overline{B}_{1\bar{x}} \right)_{\bar{y}=\bar{B}_{0}\bar{x}}, \\ P_{1}|_{\bar{y}=\bar{B}_{0}} &= \left( -\frac{2}{\varkappa+1} \overline{B}_{0\bar{x}}^{4} - \frac{\partial P_{0}}{\partial \bar{y}} \overline{B}_{1\bar{x}} \right)_{\bar{y}=\bar{B}_{0}} + \frac{4}{\varkappa+1} \left( \overline{B}_{0\bar{x}} \overline{B}_{1\bar{x}} \right)_{\bar{y}=\bar{B}_{0\bar{x}}}, \\ Q_{1}|_{\bar{y}=\bar{B}_{0}} &= \left\{ -\frac{\partial Q_{0}}{\partial \bar{y}} \overline{B}_{1} - \frac{2(\varkappa+1)k^{2} \overline{B}_{0\bar{x}}^{2} + 2l^{2}}{[(\varkappa-1)k^{2} \overline{B}_{0\bar{x}}^{2} + 2l^{2}} \left( \overline{B}_{0\bar{x}}^{2} - 2 \overline{\overline{B}_{1\bar{x}}} \right) \right\}_{\bar{y}=\bar{B}_{0}}. \end{aligned}$$

Card 4/6

21365 S/021/61/000/012/002/011 D251/D305

On determining the form ...

respectively. Here u, v, w, p, o are parameters of the flow, B(x) is the unknown form of the shock-wave and F(x) is the form of the body and (2)

 $\bar{x} = x; \bar{y} = Ty$ 

 $\vec{y} = \vec{\tau} B (\vec{x}) = \vec{B}(\vec{x})$ (3)  $\bar{y} = \mathcal{T}F(\bar{x}) = \bar{F}(\bar{x})$ 

The possibility of applying the assumption of transfer of form in the case of shock-waves of the second and first order was pointed out to the author by V. V. Sychev. The case of a flat wedge was considered as a check on the correctness of the assumptions. Fairly good results were obtained, even for the first approximation. There are 1 figure and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: D. Van-Dyke, Nat. Adv. Com. for Aeronautics, 1194 (1954)

Card 5/6

21365 S/021/61/**0**00/**0**12/002/011 D251/D305

On determining the form ...

Kyyivs'kyy Derzhavnyy universytet (State University of Kyyiv) ASSOCIATION:

By I.T. Shvets', Academician AS UkrSSR PRESENTED:

May 16, 1961 SUBMITTED:

Card 6/6

PUTYATA, Vsevolod Iosifovich; SIDLYAR, Mikhail Makarovich;
FIL'CHAKOV, P.F., doktor fiz.-mat. nauk, retsenzent;
BALYASNA, O.Ye. [Baliasna, G.IE.], red.; KHOKHANOVSKAYA,
T.I. [Khokhanovs'ka, T.I.], tekhn. red.

[Hydroaeromechanics] Gidroaeromekhanika. Kyiv, Vyd-vo Kyivs'-kogo univ. 1963. 479 p.

(Fluid mechanics)

SIDLYAR, M. M. (Kiyev)

Determination of a nonstationary temperature field in a two-layer plate in the case of a heat transfer coefficient varying in time. Prykl. mekh. 9 no.3:308-314 163. (MIRA 16:4)

1. Kiyevskiy gosudarstvennyy universitet.

(Elastic plates and shells-Thermal properties)

#### "APPROVED FOR RELEASE: 03/14/2001

#### CIA-RDP86-00513R001550420017-6

**国家建筑经验国家技术的**技术的 EWT(d)/EWT(1)/EPF(c)/EPF(n)-2/EWG(v)/EPR IJP(c) L 39287-65 WW/GS S/0000/64/000/004/0009/0014 ACCESSION NR: AT5000816 AUTHOR: Sidlyar, M. M. (Kiev) TITLE: The use of the perturbation technique for calculating temperature fields SOURCE: Nauchnoye soveshchaniye po teplovym napryazheniyam v elementakh konstruktsiy, 4th. Teplovyye naprayazheniya v elementakh konstruktsiy (Thermal stresses in construction elements); doklady soveshchaniya, no. 4 Kiev. Naukova dumka, 1964, 9-14 TOPIC TAGS: heat convection, perturbation technique, variational method, temperature field, heat transmission, heat exchange ABSTRACT: The heat transmission coefficient is a variable in transient heating (cooling) problems for bodies showing convective heat exchange with the medium. Up to the present time, actual calculations of the temperatures of bodies have been made with limitations relating to the coefficient of heat transmission. The results were mainly obtained by assuming that the coefficient of heat transmission is a constant value.

mate solution of the problem, assuming that the coefficient of near transmission varies

L 39287-65

ACCESSION NR: AT5000816

either with time or with temperature. It is also assumed that the variable part of the coefficient is negligible in comparison with the constant part, or that there is low perturbation. The variational method is used for solving the problem, employing dimensionless differential equations. Orig. art. has:29 formulas.

SUBMITTED: 02Jun64

ENCL: 00

SUB CODE:TD

NO REF SOV: 006

OTHER: 001

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Card 2APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001550420017-6"

EWT(1)/EPA(s)-2/EPF(n)-2/EWG(v)/EPR/EWA(1) Ps-5/Ps-4/Pt-10/ L 7006-65 AFWL/ESD(dp)/ESD(t)/RAEM(t) WW 8/0021/64/000/007/0846/0849 ACCESSION NR: AP4042816 Sidlyar, H. H. AUTHOR: Application of the variational method to the solution of TITLE: nonstationary problems of heat conduction SOURCE: AN Ukrasa. Dopovidi, no. 7, 1964, 846-849 TOPIC TAGS: variational method, nonstationary heat conduction, nonstationary temperature field, variational principle, linear differen tial equation, nonlinear differential equation ABSTRACT: An approximate method is proposed for solving the nonstationary heat-conduction problem under the assumption that the coefficient of the relative heat transfer is the function of time or temperature; it consists of a stationary part Ho and a variable part Hi (perturbation function), which is small as compared with the stationary one. For determining the nonstationary temperature field, the dif-

L 7006-65 ACCESSION NR: AP4042816

of the problem is sought in the form of a series

$$\theta = \sum_{k} a_{k}(\tau) \phi_{k}$$

where  $a_k(\tau)$  are to be determined and  $\phi_k$  is the system of fundamental functions which satisfy a certain condition on the surface of the body. For determining functions  $a_k(\tau)$ , a system of differential equations is derived which turns into a system of linear differential equations with variable coefficients when  $H_1$  is a function of time, and into a system of nonlinear differential equations with constant coefficients when  $H_1$  is a function of temperature. When  $H_1(\tau)$  is a polynomial or certain special functions, the system of equations can be solved by N. I. Tereshchenko's method (Ukrainskiy matematicheskoy zhurnal, no. 10, 1958, and no. 11, 1959). When  $H_1(\tau)$  is sufficiently small, systems of equations for determining  $a_k(\tau)$  are simplified. Orig. art. has: 16 formulas.

ASSOCIATION: Ky\*yivs'ky\*y derzhavny\*y universy\*tet (Kiev State University)

Card 2/3

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001550420017-6

L 7006-65 AGGESSION NR: AP4042816  SUBHITTED: OSJu163 ATD PRBSS: 3103 ENGL: 00  SUB CODE: TD, MA NO REP SOV: 006 OTHER: 001	:	•	•			•				
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L 15017-65 ENT(1)/EPA(s)-2/EPF(n)-2/ENG(v)/EPR/ENA(1) Pe-5/Ps-4/Pt-10/Pu-4
AEDC(a)/SSD/ASD(p)-3/AFMDC WW
ACCESSION NR: AP4045895 S/0021/64/000/009/1136/1138

AUTHOR: Sidlyar, M. M.

TITLE: Approximate solution of nonstationary heat conductivity problems in the case of perturbation of form

SOURCE: AN UkrRSR. Dopovidi, no. 9, 1964, 1136-1138

TOPIC TAGS: convective heat, variational method, temperature field

ABSTRACT: The author discusses the theoretical solution of a nonstationary convective heat exchange plane problem, with sporadic slightly damaged body spots for which the unperturbed problems are known, in the form of orthonormed functions. To achieve the complete solution the author uses the variational method, finding the temperature field of the series whose coefficients are determined by means of differential equations of first approximation. Orig. art. has: 17 formulas.

ASSOCIATION: Kyyivsky\*y derzhavny\*y universytet (Kiev State University)

Card 1/2

L 15017-65
ACCESSION NR: AP4045895
SUBMITTED: O5Jul63 ENCL: OO SUB CODE: TD
NO REF SOV: OO2 OTHER: OOO

L 51514-65 EWT(1)/EWP(m)/EWG(v)/FCS(k)/EWA(e) Pd-1/Pe-5

AP5010785 ACCESSION NR:

UR/0021/65/000/004/0450/0454

AUTHOR: Sidlyar, M. M.; Stetsenko, O. H. (Stetsenko, A. G.)

TITLE: Generalization of the problem of effective viscosity on a hypersonic stream of gas

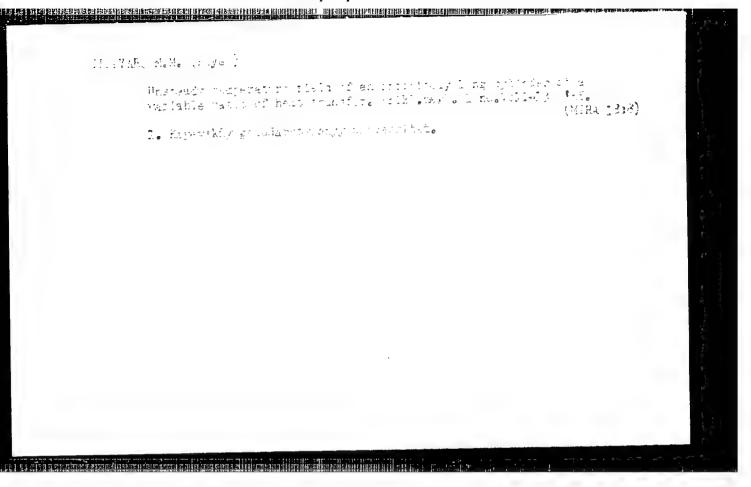
SOURCE: AN UkrRSR. Dopovidi, no. 4, 1965, 450-454

TOPIC TAGS: hypersonic flow, viscosity effect, Prandtl number, boundary layer, laminar boundary layer, streamlining

ABSTRACT: The authors consider a generalization of the problem of flow of a hypersonic stream of viscous gas around a heat-insulated wedge or a cone in the case when the Prandtl number or the ratio of the velocity of the boundary layer to the velocity of the incoming stream both differ little from unity. The equations obtained for a wedge or nonlinear can be solved approximately with the aid of numerical integration. In the case of flow around the cone, it is assumed that the thickness of the cone is comparable with the thickness of the boundary layer. Account is taken of the interaction between the boundary layer and the condensation discontinuity. This report was presented by I. T. Shwets' (Shwets). Orig. art. has: 25 formulas.

Card 1/2

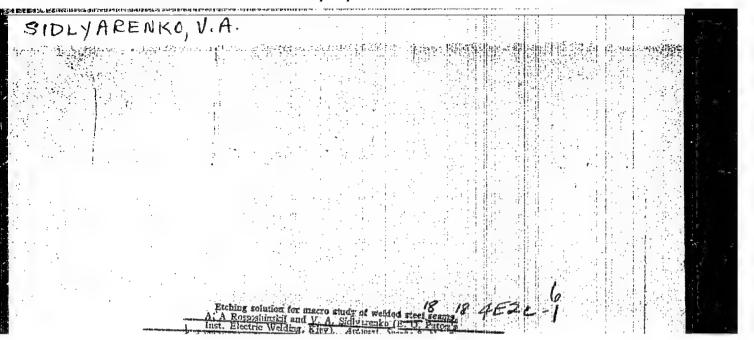
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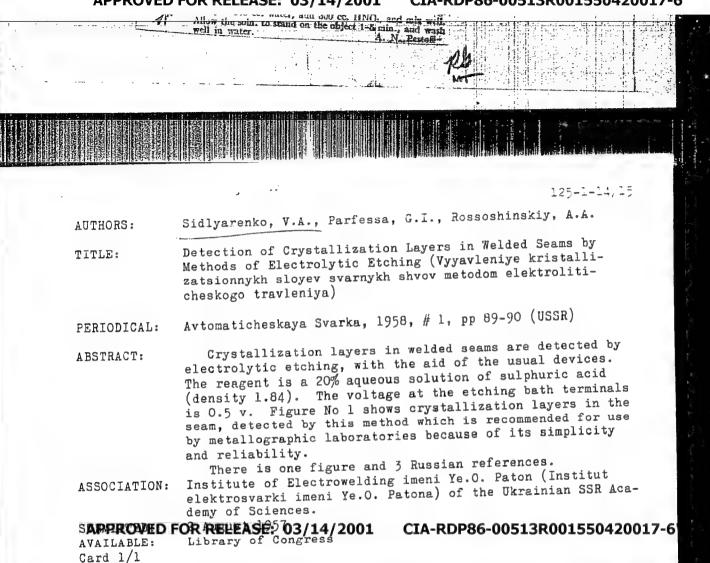


ABAYEVA, B.T.; OKINSHEVICH, N.A.; AGAFONOV, A.V.; SIDLYARENOK, F.S.; KAZAHSKIY, V.L.; GYUL'MISAR'HAN, T.G.; SUYETENKO, L.P.; GILYAZETDINOV, L.P.

Using extracts as stock for the production of active and semiactive carbon black. Nefteper. i neftekhim. no.5:30-33 '64. (MIRA 17:8)

l. Vsescyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva, Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.





#### CIA-RDP86-00513R001550420017-6 "APPROVED FOR RELEASE: 03/14/2001

125-58-7-14/14 Parfessa, G.I., and Sidlyarenko, V.A. AUTHOR:

A Universal Electrolyte for Polishing Stainless, Heat-Resistant TITLE:

Low-Carbon Steels and "VT-5" Titanium Alloy (Universal'nyy elektrolit dlya polirovki nerzhaveyushchikh, teploustoychivykh

malouglerodistykh staley i titanovogo splava VT-5)

Avtomaticheskaya svarka, 1958, Nr 7, pp 82-84 (USSR) PERIODICAL:

THE REPORT OF THE PROPERTY OF

Information is presented on a new method of electrolytic ABSTRACT:

polishing of welded joints with the use of electrolytes possessing comparatively low electric resistance and not interacting with metals under usual process conditions. The electrolyte consists of 500 cm3 glacial acetic acid and 16.5 cm3 perchloric acid. The process parameters for different grades of steel

and "VT-5" titanium alloy are given. There are 3 photos.

Institut elektrosvarki imeni Ye.O. Patona AN USSR (Institute ASSOCIATION:

of Electric Welding imeni Ye.O. Paton, AS UkrSSR)

April 26, 1958 SUBMITTED:

> 1. Welded joints--Electrolytic polishing 2. Electrolytes--Properties

Card 1/1

USCOMM-DC-55356

SOV/32-24-10-17/70 Sidlyarenko, V. A., Parfessa, G. I., AUTHORS:

-Rossoskinskiy, K. M.

The Development of Crystallisation Layers at Weld Seams According to the Method of Electrolytic Etching (Vyyavleniye TITLE:

kristallizatsionnykh sloyev svarnykh shvov metodom elektro-

liticheskogo travleniya)

Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, PERIODICAL:

pp 1217 - 1217 (USSR)

The development of crystallisation layers in weld seams ABSTRACT:

at lowly-and middle-alloyed steels that are low in carbon is connected with some difficulties (Ref 1). In the present case electrolytic etching is employed. A 20 per cent solution of sulfuric acid (density 1,84) served as reagent. The cathode was a lamella of stainless steel the surface of which was 1,5 - 2 times larger than the surface of the sample to be etched. The distance between the electrodes was about 35 mm. The terminal voltage was 0,5 volts. The duration of etching was 6

hours. After the process of etching the sample is carefully

cleaned, washed, and dried. A microphoto of a weld sample

Card 1/2

The Development of Crystallisation Layers at Weld Seams SOV/32-24-10-17/70 According to the Method of Electrolytic Etching

is shown in a figure; the crystallisation layers obtained according to the described method are clearly visible.

There are 1 figure and 2 references which are Soviet.

Card 2/2

25(1)

SOV/125-60-2-14/21

AUTHOR:

Sidlyarenko, V.A.

TITLE:

A Reagent for Macroetching Welds of Titanium and Its

Alloys

PERIODICAL:

Avtomaticheskaya svarka, 1960, Nr 2, pp 88-89 (USSR)

ABSTRACT:

The different existing methods of etching produce a shiny structure in titanium welds, which makes it very difficult to take macrosection pictures (Figure 1). A simple method has been developed for macroetching welds of titanium and its alloys of the types BT1, BT5, and BT6, which gives good results. The structure becomes clear, slightly mat, and the shine disappears (Figure 2). The composition of the reagent is: H2SO, (1.84) - 90 cm<sup>3</sup>, H2O - 18O cm<sup>3</sup>, HC1 (1.19) - 420 cm<sup>3</sup>.

The solution is heated to 90-100°C, and the surface of the macrosection is rubbed with a piece of wadding wetted

Card 1/2

SOV/125-60-2-14/21
A Reagent for Macroetching Welds of Titanium and Its Alloys

in the etching solutions till the structure becomes clear (15-20 seconds). Then the macrosection is washed and dried. There are 2 photographs.

Card 2/2

S/125/61/000/011/011/012 D040/D113

AUTHORS: Parfessa, G.I., Sidlyarenko, V.A. and Kharchenko, G.K.

TITLE: Polishing and etching molybdenum welds

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1961; 84-85

TEXT: The metallographic laboratory of the Institut elektrosvarki (Electric Welding Institute) has developed and is using new electrolytes and etching solutions for molybdenum welds. It is mentioned that the usually recommended electrolytes for metallographic polishing caused pitting. The new compounds give satisfactory results. The compositions and process data are as follows:

Card 1/6

lis	shing and etchi	ng			s/ Do	125/61/000/0 40/D113	11/011/012
•	Composition of electro-lyte	Purpose	Vol-	Current density, amp/cm <sup>2</sup>	ation,	Anode to cathode space,mm	Remarks
	2	3	4	5	6	7	8
	200 ml H <sub>2</sub> SO <sub>4</sub> (d = 1.84), 100 ml H <sub>3</sub> PO <sub>4</sub> . 100 ml H <sub>2</sub> O	Polish- ing	30	0.2	3÷30	25 <del>,</del> 30	
	(d = 1,54);	polish- ing	35 5	0.25 0.15≟0.2	10 ÷ 35 15	25÷30 25÷30	Polishing Etching

Pol:	ishing and etc	hing				S-125/61/0 DO40/D113	000/011/011/012
No.	of electro-	Purpose	tage,	Current density, amp/cm <sup>2</sup>	ation,	Anode to cathode space,mm	Remarks
1	2	3	4	5	6	77	8
3	40 ml H <sub>2</sub> SO <sub>4</sub> (d = 1.84), 70 ml HGl (d = 1.19) 200 ml methyl alcohol		32 3 ÷ 5	0.2 0.15÷0.2	5 15	30 25 ÷ 30	Polishing Etching
4	Murakami re- agent: 10 g KOH, 10 g K <sub>3</sub> Fe (CN) <sub>6</sub> ,	Etching	3 <del>f</del> 5	0.25	3 % 10	25 ½ 30	Recommended electrolyte

Pol i	shing and etch	ing				S/125/61/00 DO40/D113	00/011/011/012	
No.	Composition of electro- lyte	Purpose	tage, d	Current Lensity,	Dur- ation,	Anode to cathode space: mm	Remarks	
1	2	3	4	5	6	7	8	/
5	50 ml E71 (d = 1,19), 20 ml H <sub>2</sub> SO <sub>4</sub> (d = 1.84), 150 ml methyl alcohol	Etching	3 ÷ 5		3 ÷ 10	32	Recommended electrolyte	
6	0.5 g FeCl <sub>3</sub> . 1 ml HCl (d = 1.19). 98 ml methyl alcohol	***	5	0.2	5÷6	30		

						S/125/61/000 D040/D113	/011/011/012
oli:	shing and etch: Composition of electro-	ing Purpose	Vol- tage,		Dur- ation, sec	Anode to cathode space, mm	Remarks
	lyte	3	4	5	6	7	8
7	0.5-percenta water solution	ge on id Etchin	g 3÷5	0.25	2 - 3	22	
	Water Catho	de of stai	nless	steel		etching in to the common of th	

to prepare, and can be used for polishing after mechanical treatment of spectomens with 100-grain paper or even with a grinding stone. The electrolytes Nos. 6 and 7 are used for etching prior to as well as after mechanical polish-Card 5/6

S/125/61/000/011/011/012 D040/D113

Polishing and etching ...

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ing; however, their use on specimens electrolytically polished gives better results. The oxide film sometimes forming after etching in the No. 7 reagent dissolves readily when submerged in hydrochloric acid. Two photomicrographs are included. There are 2 figures and 1 table. [Abstracter's note: Essentially complete translation].

Card 6/6

329cl
3/135/52 Occ/ocl '016'11D036/D113

ASTHORS: Perfecta, G.I.: Kharchesko, G.Z.: Sidlystanko, T.A.

TITLE: Etching welled joints in dissimilar refractory metals.

PERIODICAL: Automaticheshaya syarka, no. 1. 1962; 88-90

PERIODICAL: Automaticheshaya syarka, no. 1. 1962; selecting of welde produced onemical stoking and electrolytes for electrolytic stoking of welde produced chemical stoking and electrolytes for electrolytic stoking of welde produced onemical stoking and electrolytes for electrolytes. Two photo-micrographs by electron beam between dissimilar refractory metals. Two photo-micrographs are included.

Struc- Welded Composition of re- Econing Conditions tore ture netals agent or electrolyte and the description of the control o	
ture netals created and and and and and and and and and an	( C = 1
	2.7
Micro- Molyb- 2 parts H <sub>2</sub> SC <sub>4</sub> (dal.3) Chemi- struc- denum (2) 100, (d.1.4). ture and 11- 2 parts HP (49%)	.7
tenium 2 part H <sub>2</sub> 50 <sub>1</sub> (1.1.8). Corner 4 part H <sub>2</sub> 50 <sub>1</sub> (1.1.8). Corner 4 part HIIO <sub>2</sub> (1.1.8). Corner 4 part HIIO <sub>2</sub> (1.1.8).	

		- in dissimilar	32961 S/125/62/000/001/009/011 D036/D113	
		s in dissimilar  TABLE (content of alkali	Electro-   25   0.23   ≥5   17	
Micro- struc- ture	denum  and  tung- sten  Molyb- denum and	0.5 g FeCl, 1 ml HCl (d=1.19), 98 ml methy alcohol	Electro- 25 0.2 3-5 lytic	17
Macro- struc- ture	1X18H9T (1Yh18N9T) steel	30 ml HNO3, 20 g FeCl <sub>3</sub> , 10 ml H <sub>2</sub> O	Chemical -	
Card				

ching welded j	joints in dissimilar TABLE (con	32961 S/125/62/000/001/009/011 D036/D113
icro-; truc- ure "clyb- denum - and <b>3M</b> A	20% solution of chromic acid	Electro- lytic 20 0.2 >5
Steel steel structure	(d=1.19), 5% HMO <sub>3</sub>	
Card 4/6		

hing welded join	ts in dissimilar	32961 S/125/62/000/001/009/0 D036/D113	11
ero- cue-	(a) 1 part HNO <sub>2</sub> , (d:1.4), 1 part H <sub>2</sub> SO <sub>4</sub> (d:1.8), 1 part HF	Chemical - 5-10	
Miobium and titanium	(b) 1 part hr (4017), 1-2 parts HNO <sub>3</sub> (d=1.4), 2-4 parts glycerine or glycol	ium	17 🗸
acro- truc- ure	2 parts HF (48%), 1 part ammonium fluoride	Chemical	
Sard 5/6			

ार्थ (क्राने) देव**त एक्ट्रो**, बहुत से एक्ट्रो, तक (देवा क्रान्ट्रोक) 1.59123 ساني بلكت بنتاني ACC NR: AP6027436 SOURCE CODE: UR/0125/66/000/007/0077/0078 1 AUTHOR: Sidlyarenko, V. A.; Kushnirenko, N. A.; Levandovskaya, S. A. ORG: none TITLE: Revealing the microstructure of Ti-30% Mo alloy welds SOURCE: Avtomaticheskaya svarka, no. 7, 1966, 77-78 TOPIC TAGS: titanium alloy, molybdenum containing alloy, alloy weld, alloy weld evaluation ABSTRACT: Since the usual etching methods do not produce satisfactory results in the case of Ti alloy containing 30% Mo, a new etching method has been developed at the Electric Welding Institute im. Ye. O. Paton. Mechanically polished samples are electrolytically polished in a solution consisting of 80 cm3 perchloric acid and 920 cm3 acetic acid. For improving the surface quality and accelerating the2/ preparation process, the electrolytic polishing can be combined with etching in a 1:1:1 solution of concentrated hydrofluoric, nitric, and sulfuric acids. The final stage is electrolytic etching in 20% oxalic acid followed, if necessary, by brightening in a mixture of hydrofluoric, nitric and sulfuric acids. Orig. art. has: 1 figure. SUB CODE: 11, 13/ SUBM DATE: none/ ATD PRESS: 5060 621.791:669.295:621.794.4

SIDLYARENKO, V.I.; ZAITOV, F.N.; LUKANTSEVER, Yu.L.

Existence of F-centers with different thermal stability in alkali halide phosphors. Opt.i spektr. 13 no.1:143-144 J1 '62.

(Alkali metal halides--Thermal properties) (Phosphors)

SIDLYARENKO, V.I.; LUKANTSEVER, Yu.L.; ZATTOV, F.N.

Distribution of F-centers in alkali halide crystal phosphore. Izv. vys. ucheb.zav.;fiz.no.2:42-45 '53.

(MIRA 16:5)

1. Oshskiy gosudarstvennyy pedagogicheskiy institut Kirgizskoy SSR. (Color centers)

(Aikali metal halide crystals)

SIDLYAMENKO, V.I.; ZAITOV, F.N.; LUKANTSEVER, Yu.L. Thermal stability of F-centers in KCL -T1, Sr and KCl - T1, Ca crystal phosphors. Izv. vys. ucheb. zav.; fiz. no.5:50-54 '63.

(MIRA 16:12)

1. Oshskij gogudarstvendyy pedagogicheskiy institut.

CIA-RDP86-00513R001550420017-6" APPROVED FOR RELEASE: 03/14/2001

JD/GG EWT(1)/EWT(m)/T/EWP(t)/EWP(b) L 64730-65 UR/2613/64/000/028/0111/0120 AT5021779 ACCESSION NR: L.; Zaitov. I.; Lukantsever, TITLE: Investigation by microscopic methods of the processes of the formation and destruction of color centers in NaCl single crystals SOURCE: AN EstSSR. Institut fiziki i astronomii. Trudy, no. 28, 1964. po lyuminestsentii (Research on luminescence), 111-120 TOPIC TAGS: color center, x ray coloring, activated crystal, crystal lattice deformation ABSTRACT: Special features of the formation and destruction of F- and M-color centers in microscopic regions of nonactivated natural NaCl single crystals were investigated. The color centers were generated at room temperature with the aid of x-rays on a URS-55 installation. The formation of centers was tracked by photographing the same section of irradiated crystal after definite time intervals at the maxima of the corresponding absorption bands. The maxima were isolated by using an MK monochromator and filters: the SZS-8 filter for the F-band ( $\lambda_{max} = 460 \text{ mm}$ ) and the PS-8 filter for the M-band ( $\lambda_{max} = 720 \text{ mm}$ ). The microscopic thermal bleaching method (Izv. V. U. Z., Fizika, no. 2, 42, 1963) was used for the observation of the destruction of color centers. \_Card 1/2

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and destruction of F-centers in nonactivated crystals proceeds in one stage, and after irradiation in several stages. In various crystal domains the number of Fcenters increases and decreases at different rates. M-centers virtually do not form in nonactivated crystals. Multiple x-raying and subsequent heating of the crystal when followed by x-ray excitation, caused M-centers with different thermal stabilities to form. Variations in thermal stability within a given type of color center in a natural NaCl crystal are attributed to the inherently uneven ionic distribution surrounding the centers in nonactivated centers. Orig. art. has: 7 formulas and 4 [JA] figures.

ASSOCIATION: Institut fiziki i astronomii, Akademiya nauk Estonskoy SSR (Institute

of Physics and Astronomy, Academy of Sciences Estonian SSR)

SUBMITTED: 13Dec63

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NO REF SOV: 013

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L 22457 <b>-6</b> 6	EWT(m)/T/EWP(t)	IJP(c) JD	/JG		
ACC NR:	AP6009148	SOURCE CODE:	UR/0139/65/0	00/005/0097/0	
AUTHORS:	Sidlyarenko, V.	I.; Zaitov,	F. N.; Luka	ntsever, Yu.	L. 25
ORG: Osh	a State Pedagogi	cal Institute	(Oshskiy peda	agogicheskiy	3
TITLE: Intruction of methods	nvestigation of pof color centers	processes inv in <u>alkali</u> -ha 27	volving the creating the creating the crystals	eation and de by microscop	s- ic
SOURCE:	IVUZ. Fizika, no	. 5, 1965, 97	<b>-101</b>		- 3
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centers by alkali-hal synthesize different	The authors in x rays in difference compounds. ed NaCl single crossources, and fill destruction of	erent microso The objects rystals, natu lamentary NaO	opic regions of the investigation of the investigation of the investigation of the control of th	of single-cry lgation were le crystals!f The laws gove	rom
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sections of the crystal were investigated by the authors earlier by a method of microscopic thermal discoloring (microdiscoloring) (Izv. vuzov SSSR, Fizika, no. 2, 42, 1963 and no. 5, 50, 1963). The present study was by a method developed for this purpose, called the micro-coloring method, consisting of photographing the same sections of the single crystals (with linear dimensions  $t = 5 \times 10^{-2}$  cm) during the course of the x ray exposure at the maxima of certain absorption bands. The apparatus for the microphotography was described The method makes it possible to trace the forin the earlier work. mation of color centers in sections with linear dimensions ~10-3 mm. The x-ray exposures range from 90 to 240 minutes, depending on the type of crystal and on the type of centers. The color-center destruction was by means of uniform heating and was investigated by the microthermal discoloring method. The use of both microscopic methods (microcoloring and microdiscoloring) permits a study, on the one hand, of the formation and destruction of the color centers in one and the same section of the single crystal, and on the other hand, comparison of the laws governing the coloring and discoloring in microscopic

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sections with different locations in the crystal. The results show that the increase in the degree of destruction of the regular crystal lattice of NaCl under various influences distorts both the coloring and discoloring curves. The higher the perfection of the crystal, and discoloring curves. It is concluded that a more detailed the more regular the curves. It is concluded that a more detailed investigation by microscopic means is necessary to determine the relaxation processes in alkali-halide crystal phosphors. The authors relaxation processes in alkali-halide crystal phosphors. The authors thank Doctor Ch. B. Lushchik, M. A. Elango, and R. I. Gindina for valuable discussions and for supplying several of the crystals for the investigation. Orig. art. has: 5 figures

SUB CODE: 20/ SUBM DATE: 20Apr63/ ORIG REF: 011/ OTHREF: 006

Card 3/3

ACC NR: AP5027408  SOURCE CODE: UR/0181/65/007/011/3302/3309  AUTHOR: Sidlyarenko, V. I.; Zaitov, F. N.; Lukantsever, Yu. L.  ORG: Osh State Teachers' Institute (Oshskiy gosudarstvennyy pedagogicheskiy institut)  TITLE: Effect of some structural factors on the thermal stability of color centers in alkali halide phosphor crystals  SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3302-3309	
TOPIC TAGS: alkali halide, sodium chloride, crystal phosphor, color center  ABSTRACT: The authors study the following factors with regard to their effect on the thermal stability of F-centers in NaCl-based phosphor crystals: 1. impurity tration of a given type of impurity ion; 3. plastic deformation; 4. previous thermal radiation treatment; 5. preheating of the activated crystal. The results are cadmium. Some of the characteristics of thermal dissolution of color centers in  Card 1/2	
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ble part in the various factors cussed. Theore	are experimentally determined.  the rate of dissolution of comechanism of thermal dissolution which may change the thermal stical predictions are made on the theoretical and experimental	on is played by ion procestability of color center the basis of the ion mech l data show that the ion	esses. The sare dis- anism of color mechanism may kali halide
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They, F.H., DHEADTHEVER, Yu.L.: FIDITARENKO, V.I.

The of microscopic techniques in studying the production and breakdown of color centers in Nafl single crystals, fav. AN SEUR, Ser. fig. 29 no.3.449-453 Mr 165.

(MIRA 1894)

1. Conskiy gosudarstvennyy pedagoglobeskiy anstitut KirgSER.

ACC NR: AP6036957

(A, N)

是我们的对象,可是不是一个人,我们就是一个人,我们就是我们是我们的现在,我们就是我们的人,我们就是我们的人,我们就是我们的人,我们的人,我们的人,我们就是我们的

SOURCE CODE: UR/0181/66/008/011/3201/3203

AUTHOR: Sidlyarenko, V. I.: Spikin, V. I.

ORG: Osh State Pedagogical Institute (Oshskiy gosudarstvennyy pedagogicheskiy institut)

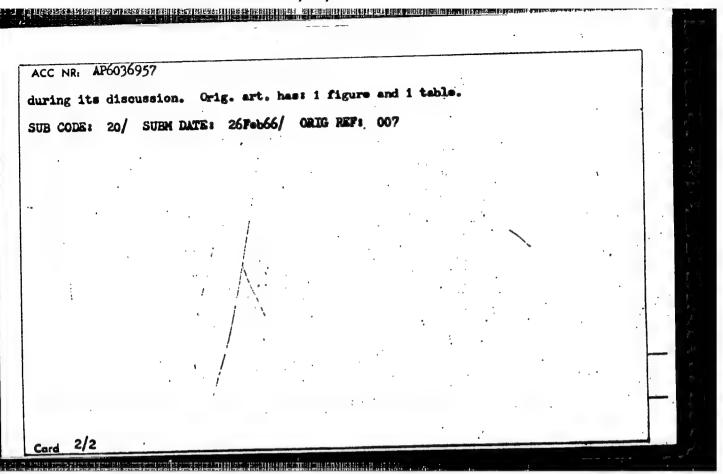
TITIE: Microspectrophotometric study of the influence of dislocations on the stability of F color centers in NaCl-base phosphor crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3201-3203

TOPIC TAGS: crystal phosphor, sodium chloride, color center, crystal dislocation

ABSTRACT: A microspectrophotometric method was used to study the effect of dislocations on the stability of F-centers on topographically different domains of an NaCl single crystal containing 0.2 mole % Ag. The method made it possible to correlate the dislocation density with the thermal destruction of color centers on microscopic areas with  $4 \le 10^{-2}$  cm. It was found that in domains with a higher dislocation density the F-centers have a greater thermal stability. The results confirm the ionic mechanism of thermal destruction of color centers in alkali halide crystals. The data also indicate that in addition to dislocations, other structural imperfections can also act as ionic trapping centers. In conclusion, authors are deeply grateful to Yu. L. Lukantsev and F. N. Zaitov for their constant interest in this work and useful remarks

Card 1/2



ACC 1484 AP7004978

SOURCE CODE: UR/0048/66/036/009/1477/1478

AUTHOR: Sidlyarenko, V.I.; Spikin, V.I.

ORG: Osh State Pedagogic Institute of the Kirgiz SSR (Oshskiy gosudarstvennyy pedagogicheskiy institut Kirgizskoy SSR)

TITLE: Microspectrophotometric investigation of the influence of dislocations on the stability of F centers in NaCl crystal phosphors /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no.9, 1966, 1477-1478

TOPIC TAGS: color center, sodium chloride, silver, x ray irradiation, thermal stability crystal lattice dislocation

ABSTRACT: The authors employed the microspectrophotometric technique of V.I. Sidlyarenko, F.N.Zaitov, and Yu.L.Lukantsever (Optika i spektroskopiya, 13, 143 (1962)) to investigate the thermal bleaching of F centers in regions with linear dimensions of the order of 0.01 cm in x irradiated NaCl crystals grown by the Kyropoulos technique and containing 0.2 mole percent Ag. The investigation was undertaken because a correlation had previously been found between the thermal stability of F centers and the density of dislocations in individual alkali halide crystals and it was desired to determine whether this correlation would extend to different regions of the same crystal. Thermal bleaching of the F centers was found to take place in two stages.

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The temperature at which the first (low temperature) stage of the thermal bleaching occurred varied from region to region and was higher in the regions with the higher dislocation densities, while the temperature at which the second stage took place was the same (from about 475 to 575° K) in all the regions. It is concluded that the presence of dislocations contributes to the low temperature thermal stability of E centers, but not to the high temperature thermal stability thereof. A brief explanation of the observed correlation is given in terms of the ionic thermal bleaching mechanism of Y.L.Lukantsever and F.N.Zaitov (Izv. AN SSSR. Ser.fiz., 25, 473 (1961)). The authors thank Yu.L.Lukantsever and F.N.Zaitov for their interest in the work and for valuable discussions. Orig. art. has: 1 figure and 1 table.

SUB CODE: 20 DATE SUBM: none ORIG. REF: 007

Cord 2/2

ACC NR: AP700-1979

SOURCE CODE: UR/0045/35/030/009/1479/1482

AUTHOR: Lukantsever, Yu.L.; Zaitov, F.N.; Sidlyarenko, V.I.

ORG: Osh State Pedagogical Institute of the KirgSSR (Oshskiy gosudarstvennyy pedagog-icheskiy institut KirgSSR)

TITLE: Influence of microdefects on the thermal stability of P centers in alkali halide crystal phosphors /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 9, 1966, 1479-1482

TOPIC TAGS: sodium chloride, luminescent crystal, color center, lattice defect, ion interaction, thermal effect, THERMISL STIBILITY, PLEALI HALIDE

ABSTRACT: There is given a brief theoretical disckssion of the thermal bleaching of color centers in alkali halide phosphors based on the hypothesis that the bleaching is effected by ions that can also be captured by trapping venters associated with lattice defects. The calculations involve the simplifying assumption that the probability for the interaction of an ion with a trapping center is much greater than that for its interaction with a color center. An equation is obtained relating the temperature TM at which the rate of thermal bleaching is maximum to the energy  $u = Q_V + Q_F - Q_L$ , the frequency of lattice ion vibrations in the vicinity of a color center, the rate of heating of the crystal, and the quantity  $n/\gamma N$ , where  $Q_V$  is the activation energy for

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ACC NR: AP7004979

movement of an ion through the lattice,  $Q_{
m F}$  is the activation energy for interaction of an ion with an F center, Qt is the activation energy for interaction of an ion with a trapping center, n is the concentration of the ions that interact with the trapping and color centers, N is the concentration of trapping centers and  $\gamma$  is the ratio of the interaction cross section of a trapping center to that of a color center. The relation between  $T_{
m M}$  and u is involved and not even necessarily single valued. Experiments with NaCl crystals containing different activators revealed a wide range of TM values and values of n/7N for only a small range of u values. The thermal bleaching curve of each of these crystals gave a linear relation between log(dnp/npdT) and l/T, where np is the F center concentration and T is the temperature. The experimental thermal bleaching curves were in good agreement with the theory even under conditions in which the essential simplifying assumption concerning the relative probabilities of bleaching and trapping appeared not to be satisfied. It is suggested that N, which was taken as the dislocation concentration, was underestimated and that other lattice defects also contribute to the trapping. Orig. art. has: 6 formulas, 2 figures and 1 table.

SUB CODE: 20 SUBM DATE: none 'ORIG. REF: 006 OTH REF: 002

Card 2/2

SIDLYARENKO, V.V.

Tow braking and scutching machine for primary processing of hemp on collective farms. Sel'khozmashina no.10:16-18 0'55.

(MEA 8:12)

1. Nauchnyy sotrudnik Vsesoyuznogo nauchno-issledovatel'skogo instituta lubyanykh kul'tur

(Agricultural machinery)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001550420017-6"

SIDLYARENKO, V.V.

Combine for harvesting hemp. Sel'khozmashina no.11:3-5 N '55.
(MIRA 9:1)

1.Waychnyy sotrudnik Vsesoyuznogo nauchno-issledovatel'skogo
instituta lubyanykh kultur.
(Combines(Agricultural machinery)

BUYANOV, Viktor Ivanovich; VOLOVIK, S.S.; GONCHAROV, G.I.; LYASHENKO, S.N.; SIDLYARENKO, V.V.; PESTRYAKOV, A.I., redaktor; FEDO-TOVA, A.F., tekhnicheskiy redaktor.

[Mechanization of hemp growing] Mekhanizatsiia konoplevodstva.

Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956. 290 p. (MIRA 10:6)

(Hemp) (Agricultural machinery)